plane
GRUMMAN
news

Grumman awarded shuttle study program

President Lew Evans announced yesterday that "we have been awarded what NASA is calling a Phase A contract to study three versions of the shuttle."

The fixed contract amounts to $4 million.

Grumman, according to a National Aeronautics and Space Administration release, will have the Boeing Company at Seattle as its major subcontractor.

NASA will also be negotiating with Lockheed Aircraft Corporation, Los Angeles, and Chrysler Corporation, New Orleans. The study program is to run for 11 months.

The space shuttle concepts involved in the Grumman study are:

- A stage-and-one-half shuttle to consist of a single reusable manned spacecraft with an on-board propulsion system and droppable tanks for supplementary propellants
- A reusable orbiter with expandable booster, which envisions a second stage orbiting shuttle launched on an expendable existing booster or on a new minimum-cost first stage propellant booster
- A reusable first stage using existing J-2S engine technology and solid propellant auxiliary boosters with a reusable second stage orbital shuttle also powered by J-2S engines

Rigorous examination

The Grumman-Boeing and Lockheed studies will rigorously reexamine the feasibility of shuttle concepts that might be competitive—technically and economically—with the two-stage fully reusable system. The results of these studies, together with those already under way, will assure that nothing is overlooked and that the shuttle concept finally selected for development will provide the most economical space transportation system.

Recently, the National Aeronautics and Space Administration selected the McDonnell Douglas Corp., St. Louis, and the North American Rockwell Corp., Space Division, Downey, Calif., for final negotiations of parallel 11-month Phase B (definition and preliminary design) contracts for studies of the most promising approach to the space shuttle—the fully reusable two-stage vehicle.

In a related Phase A (feasibility) effort, Chrysler will study another concept — a reusable vehicle that can place a payload into earth orbit with a single stage. The contract will be managed by the Marshall Space Flight Center.

Evans mentioned in his talk to space engineers in Plant 25 that he thought Gruman's original proposal, although not the winner, had "qualities well above and beyond 250 pages of printed type that should determine the course of this nation's space program. I think that it's on that basis that NASA awarded us this contract.

"Now we do have our work cut out for us. We have work to do."

That, in a way, is the message that Senior Vice President Joe Gavin, director of Space Programs, voiced during a recent interview. "The Grumman group which has worked on this proposal," he said, "deserves tremendous credit for having progressed so well so far." That was especially true, he said, because Grumman was a "late starter."

Gavin turned out to be a good forecaster during that conversation:

"It appears NASA is not so much interested in what we proposed as in some of the economic ideas we advanced. We think we have a great opportunity."

How right he was!

While Evans said that he could not see much possibility of budgets for space for six to eight million dollars a year in the foreseeable future, he indicated that he was talking about a period after 1972. "This says that the funds we have must be spent in a very wise fashion. Now talking to Dr. (Tom) Payne, he emphasized the fact that what he was really looking for from this Corporation in its study is letting out a program similar to our F-14. That's characterized as a low-risk development program."

Quality counts

Later, Lew indicated that our "standard of quality must stay up." He turned to the study competition:

"We all know I'm not a great believer of the thing I have read both in North American and the McDonnell proposals. I don't know how many of you had an opportunity (to study them). Those are very fine proposals. It's absolutely clear to me if you put the proposals side by side there were two very clear winners. That was not Grumman. On the other hand I'm going to say we were the only Corporation that had the guts to find a new direction for the customer."

Special report
Wednesday, June 17, 1970